QUESTIONS AND ANSWERS ABOUT:

PROPOSED CRITICAL HABITAT FOR FIVE SOUTHEASTERN FISHES

1. When were the Cumberland darter, rush darter, yellowcheek darter, chucky madtom, and laurel dace listed under the Endangered Species Act (ESA)? The U.S. Fish and Wildlife Service listed these five fishes as endangered on August 9, 2011.

2. What is critical habitat? Critical habitat is a term defined and used in the Endangered Species Act. It refers to specific designated geographic areas containing features essential to the conservation of a threatened or endangered species and that may require special management consideration or protection. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. It does not allow government or public access to private lands. The term critical habitat in this legal context should not be confused with an informal usage of the phrase to describe a type of habitat that is 'critical' to individuals of the species.

3. Why is critical habitat being designated for these five fishes? At the time of listing, the Service assessed whether critical habitat would be prudent for these species, and found that it was; therefore, the Service is proposing critical habitat, as required by the Endangered Species Act.

4. In what geographic areas and type of habitats do the five fishes occur? The **Cumberland darter** is found in the upper Cumberland River system above Cumberland Falls in Kentucky and Tennessee. The Cumberland darter inhabits pools or shallow runs of moderate gradient streams with sand, silt, or sand-covered bedrock substrates. The **rush darter** is found in the Tombigbee-Black Warrior drainage above the Fall Line (the inland boundary of the Coastal Plain physiographic region and other "highland regions" where topography and elevation changes are observed, presenting a barrier for fish movement) in Alabama. The rush darter inhabits root masses of growing vegetation along the margins of spring-fed streams and springs with silt and sand substrates. The **yellowcheek darter** is found in the Little Red River basin in Arkansas. The yellowcheek darter inhabits high-gradient headwater streams within moderate to strong riffles with gravel, rubble, and boulder substrates. The **chucky madtom** is found in Little Chucky Creek the upper Tennessee River system in Tennessee. The chucky madtom inhabits stream runs with slow to moderate current over gravel, cobble, or slab-rock substrates. The **laurel dace** is found in the Walden Ridge portion of the Cumberland Plateau, where drainages generally meander eastward before dropping abruptly down the plateau escarpment and draining into the Tennessee River in Tennessee. The laurel dace inhabits headwater streams within pools or slow runs with undercut banks or beneath slab-rock boulders.

5. What are the specific areas proposed for designation as critical habitat for the five fishes?

The fifteen proposed critical habitat units for the **Cumberland darter** are located in McCreary and Whitley counties, Kentucky, and Campbell and Scott counties, Tennessee.

Approximately 85 river kilometers (rkm) (53 river miles (rmi)) in portions of Kentucky and Tennessee are proposed as critical habitat for the Cumberland darter. These units include a total of approximately 35 rkm (22 rmi) in private ownership and 51 rkm (32 rmi) in public ownership.

The eight proposed critical habitat units for the **rush darter** are located in Etowah, Jefferson, and Winston counties, Alabama. Approximately 42 rkm (27 rmi) and 19 hectares (ha) (22 acres (ac)) in Alabama are proposed as critical habitat for the rush darter. These units include a total of approximately 43 rkm (26 rmi) and 19 ha (22 ac) in private ownership and less than one rkm (less than one rmi) in public ownership.

The four proposed critical habitat units for the **yellowcheek darter** are located in Cleburne, Searcy, Stone, and Van Buren counties, Arkansas. Approximately 157 rkm (98 rmi) in Arkansas are proposed as critical habitat for the yellowcheek darter. These units include a total of approximately 148 rkm (92 rmi) in private ownership and 9 rkm (5 rmi) in public ownership.

The one proposed critical habitat unit for the **chucky madtom** is located in Greene County, Tennessee. Approximately 32 rkm (20 rmi) in Tennessee are proposed as critical habitat for the chucky madtom. This unit includes a total of approximately 31 rkm (20 rmi) in private ownership and less than one rkm (less than one rmi) in public ownership.

The six proposed critical habitat units for the **laurel dace** are located in Bledsoe, Rhea, and Sequatchie counties, Tennessee. Approximately 42 rkm (26 rmi) in Tennessee are proposed as critical habitat for the laurel dace. These units include a total of approximately 42 rkm (26 rmi) in private ownership and less than one rkm (less than one rmi) in public ownership.

The proposed critical habitat rule designates approximately 359 rkm (224 rmi) and 19 ha (22 ac) of critical habitat for the five species combined. This includes approximately 299 rkm (186 rmi) and 19 ha (22 ac) in private ownership and 60 rkm (37 rmi) in public ownership.

6. Are all the areas proposed for designation as critical habitat occupied by the fish? No. For the Cumberland darter we are proposing to designate 2 of the 15 units that are outside the geographical area occupied by the species because we have determined that (1) Such areas are essential for the conservation of the species; and, (2) designation of only occupied habitats is not sufficient to conserve this species. Unoccupied habitats provide additional habitat for population expansion and promote genetic diversity, which will decrease the risk of extinction for the species.

7. How can I find out if my land is within critical habitat proposed to be designated for the five fishes? The proposed rule published in the *Federal Register* includes maps showing the proposed critical habitat subunits. If you are unsure if your property is included within one of these subunits, contact your local Fish and Wildlife Ecological Services Field Office, as described below:

For information regarding the **Cumberland darter**: Kentucky Ecological Services Field Office, J.C. Watts Federal Building, 330 W. Broadway Rm. 265, Frankfort, KY 40601; telephone 502-695-0468; fax 502-695-1024.

For information regarding the **rush darter**: Mississippi Ecological Services Field Office, 6578 Dogwood View Parkway, Suite A, Jackson, MS 39213; telephone 601-965-4900; fax 601-965-4340 or Alabama Ecological Services Field Office, 1208-B Main Street, Daphne AL 36526; telephone 251-441-5181; fax 251-441-6222.

For information regarding the **yellowcheek darter**: Arkansas Ecological Services Field Office, 110 South Amity Road, Suite 300, Conway, AR 72032; telephone 501-513-4470; fax 501-513-4480.

For information regarding the **chucky madtom** and **laurel dace**: Tennessee Ecological Services Field Office, 446 Neal Street, Cookeville, TN 38501; telephone 931-528-6481; fax 931-528-7075.

If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

8. Is habitat supporting all populations of these five fishes included in proposed critical habitat? Yes, all habitats supporting these five fishes are included in the proposed critical habitat designation.

9. Will these five fishes still be protected if they are outside of designated critical habitat? Yes. Because all five fishes are listed species, they are protected regardless of whether they are inside or outside of an area designated as critical habitat. When critical habitat is designated, federal agencies also are required to ensure that their activities will not destroy or adversely modify critical habitat.

As listed species, these five fishes are protected from "take" throughout their range regardless of whether critical habitat has been designated. "Take" is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these. Harm is further defined in the Service's regulations (50 CFR 7.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

10. How did the Service determine which areas to designate as critical habitat? The proposed critical habitat designations are based on the best scientific information available concerning the species' present and historic range, habitat, biology, and threats. The Service reviewed and summarized the current information available for these five fishes. The information used included known locations; the final listing rule for the species; recent biological surveys and reports; aerial photography of historically and currently occupied habitat; peer-reviewed literature; and discussions and recommendations from species experts. Biologists identified the physical and/or biological habitat features needed for life and successful reproduction of the five species:

- space for individual and population growth and for normal behavior, cover or shelter,
- food, water, air, light, minerals, or other nutritional or physiological requirements,
- sites for spawning and rearing offspring, and,
- habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

By law, the Service is required to identify sufficient areas containing these characteristics to ensure the conservation of the species.

11. What kind of habitat is considered critical to the five fishes? Based on the Service's current knowledge of the life history, biology, and ecology of these five fishes and the requirement of habitat to sustain their essential life history functions, it was determined that the habitats needed for the conservation of these five fishes are:

(1) Geomorphically stable (stable horizontal and vertical dimensions, sinuosity pattern, and longitudinal profile without aggrading or degrading the bed elevation) streams; connectivity between spawning, foraging, and resting sites; and gene flow within the species' range where possible.

(2) Stable stream bottom composed of relatively silt-free substrates. Relatively silt-free is defined is defined for the purpose of this rule as silt or fine sand -within interstitial spaces of substrates in amounts low enough to have minimal impact to the species.

(3) An instream flow regime (magnitude, frequency, duration, and seasonality of discharge over time) sufficient to provide permanent surface flows during years with average rainfall and maintain river habitats utilized by the species.

(4) Adequate water quality characterized by moderate stream temperatures, acceptable dissolved oxygen concentrations, moderate pH, and low levels of pollutants. Adequate water quality is defined for the purpose of this rule as the quality necessary for normal behavior, growth, and viability of all life stages of these five fishes.

(5) Habitats containing a prey base of aquatic macroinvertebrates, such as: beetles, microcrustaceans, blackfly larvae, stonefly larvae, mayfly nymphs, and caddisfly larvae.

12. Does a critical habitat designation affect all activities that occur within the designated area? No. An area designated as critical habitat is not a refuge or a sanctuary for the species. Activities that do not involve a federal action that may affect critical habitat, will be unaffected by the designation. Private land use activities, such as farming and silviculture, would be unaffected. Federal activities, or actions permitted, licensed, or funded by federal agencies, will require consultation with the Service if they are likely to adversely modify critical habitat. In such cases, the Service will work with

the federal agency to identify alternatives where the project may proceed without adverse modification to critical habitat.

13. What does "consultation" mean? Consultation is a process by which federal agencies use the Service's expertise to evaluate the potential effects of a proposed action on Endangered Species Act listed species and their critical habitats. Consultation also may identify alternatives to the proposed action to avoid adverse effects on listed species and their habitats. Federal agencies are already required to consult with the Service under the Endangered Species Act whenever a proposed action might impact a listed species or its habitat. Thus, the designation of critical habitat is unlikely to appreciably increase the cost of consultation to either the federal agency or the permit applicant.

14. Will the critical habitat designation lengthen the consultation process? Probably not, unless an "adverse modification" (see question number 15) determination is made. Under the Endangered Species Act, the Service has 135 days in which to complete the consultation process with action agencies. This time frame remains the same whether or not there is critical habitat within the project area. In addition, the outcome of issuing federal permits or providing federal funding for research will not be altered due to critical habitat designation unless adverse modification is determined. Designation of critical habitat for these five fishes notifies the federal action agencies and the public that permits and other authorizations for activities within these designated critical habitat areas must comply with Section 7 consultation requirements. For each Section 7 consultation, the Service already reviews the direct and indirect effects of the proposed projects on the five fishes, and will continue to do so for critical habitat, if it is designated.

15. What activities could adversely affect critical habitat and may require special management considerations for these five fishes? Activities that may affect critical habitat include, but are not limited to, the following:

- Coal and gravel mining
- Natural gas and oil exploration activities
- Timber harvest
- Agricultural activities (row crops and livestock)
- Construction and maintenance of roadways
- Nonpoint source pollution
- Loss of river bank buffers
- Gas, water, electrical power-line, and sewer easements and/or pipelines
- Water diversion and/or withdrawal from streams and springs
- Off-road vehicle use

16. What does it mean to "destroy" or "adversely modify" critical habitat? Pursuant to current national policy and the statutory provisions of the Endangered Species Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed federal action, the affected critical habitat would remain functional (or retain the current ability for the species' essential habitat or biological elements to be functionally established to serve the intended conservation role for the species).

17. Are all areas within the critical habitat boundaries for the five fishes considered critical habitat? In order for an area to be designated as critical habitat, the area has to contain the physical and biological features essential to support the life cycle needs of the species. Critical habitat does not include existing developed sites such as homes or other urban structures, agricultural areas, highways, bridges, or other similar structures.

18. Must federal agencies consult with the Service even where critical habitat has not been designated? Even when there is no critical habitat designation, federal agencies must consult with the Service on actions that may affect listed species in order to ensure that any action they carry out, fund or authorize is not likely to jeopardize a listed species continued existence. Where critical habitat is designated, a consultation also ensures that the critical habitat is not destroyed or adversely modified.

19. Does the ESA consider economic consequences as a part of designation critical habitat? Yes. Unlike Endangered Species Act listing decisions, the Service must take into account the economic impact, as well as any other relevant impacts, of specifying any particular area as critical habitat. The Service may exclude any area from critical habitat if it determines the benefits of excluding it outweigh the benefits of specifying the area as a part of critical habitat, unless the Service determines that failure to designate the area as critical habitat would result in the extinction of the species. The draft economic analysis is being prepared for the proposed designation of critical habitat and will be available for public review and comment at a later date.

20. Who should you contact for more information? Stephanie Chance, Listing Biologist, by telephone at 931/525-4981, via e-mail at stephanie_chance@fws.gov, or by mail at U.S. Fish and Wildlife Service, Tennessee Field Office, 446 Neal Street, Cookeville, Tennessee 38501.